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Cotton Fiber and Processing Test Results

CROP of 1976



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 22, 1976

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1976

Discussion of Test Results

The average Fibrograph 2.5% span length of short staple samples tested from the Southwest through October 15 is shorter than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons are less uniform. The average fiber strength is considerably weaker than a year ago on the limited number of lots tested this season. Shirley Analyzer nonlint content is lower, while picker and card waste on the average is higher than last season. Yarns spun from these samples show considerably weaker yarn strength but approximately the same appearance and imperfection qualities as a year ago. The average spinning potential yarn number is lower.

Medium staple samples tested from the South Central area are slightly shorter and considerably finer than a year ago at this time. The average 1/8-inch gage fiber strength is weaker. Picker and card waste is higher. Generally the yarn qualities are better than a year ago. Yarns spun from these samples show stronger skein strength and higher appearance grades than a year ago. There are fewer imperfections. The average spinning potential yarn number is higher.

Medium staple samples tested from the Southwest show cotton fibers to be slightly longer and finer than a year ago. Picker and card waste is higher. Yarns spun from these samples show approximately the same yarn properties as a year ago except for having slightly fewer imperfections.

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

^{1/} Summary of Cotton Fiber and Processing Test Results, Crop of 1975,
USDA, AMS, Cotton Division, May 1976.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through October 15, 1976

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results							
		Fibrograph		Mike fine- ness		Fiber strength Zero gage		S A nonlint gage		P & C waste		Skein str.		Yarn quality	
		2.5% span	50/2.5 unif.	inches	pet.	rag.	mpsi	g/ter	pct.	pct.	lbs. 22s	index carded	no. yarn	no. yarn	imperf- ections
Short Staple:															
Southwest															
1975	6	1.01	46	4.4	88	23	3.4	5.8	104	113	11	11	48		
1976	3	.96	44	4.4	83	20	2.8	7.1	83	113	12	12	36		
Medium Staple:															
South Central															
1975	6	1.11	46	4.8	88	24	2.9	5.1	99	102	19	19	54		
1976	3	1.10	46	4.3	88	22	2.9	5.9	112	107	15	15	59		
Southwest															
1975	21	1.08	45	4.3	81	22	2.9	4.7	103	99	22	22	58		
1976	22	1.07	45	4.2	81	22	3.1	6.0	105	99	19	19	58		
Significant difference 2/															
1/	0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3				
2/	Based on a limited number of samples of modal quality														Minimum differences considered to be significant for comparisons in this table.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1976

Production Area, Classification & Sample Number		Fiber Test Results										Processing Test Results - Carded Yarns										
		Digital Fibrograph	Mike	Fiber Strength	Elon- gat'n 1/8"	S.A. Non- lint	Color Raw Stock	P & C	Strength	Elongation	Appearance Index	Imperfect's	Spin. Poten- tial									
Grade	Stple	2.5% span	Unif	Zero Gage	Gage	Gra	Yel Waste	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	
32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No	No	
SOUTHWEST		AREA																				
CENTRAL TEXAS		LANKART																				
BRANDON	42	31	0.98	45	4.3	79	20	6.8	3.1	2	4	6.8	307	89	7.7	6.0	130	120	11	9	42	
1 SLM LT SP	42	31	0.98	45	4.3	79	20	6.8	3.1	2	4	6.8	307	89	7.7	6.0	130	120	11	9	42	
ITALY		LANKART																				
1 MID LT SP	32	30	0.92	42	4.4	82	19	5.6	2.5	2	4	6.7	283	78	6.8	5.5	130	110	14	10	31	
ITASCA		LANKART																				
1 SLM LT SP	42	31	0.98	45	4.6	87	21	5.4	2.9	2	4	7.9	296	83	6.4	5.1	130	110	22	17	35	

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1976

Production Area, Classification & Sample Number				Fiber Test Results												Processing Test Results - Carded Yarns													
				Digital Fibrograph		Fiber Strength		Elong- at'n 1/8"		S.A.		Color Raw Stock		P & C Waste		Strength		Elongation		Appearance Index		Imperfect's 22s or 50s or 27 tx		22s or 50s or 27 tx		Spin. Potential			
No	Grade	Staple	2.5% span	Mike	Zero	1/8"	Gage	Gage	Yel	Gra	Non-Lint	22s or 50s or 27 tx	12 tx	22s or 50s or 27 tx	12 tx	22s or 50s or 27 tx	12 tx	No	No	No	No	No	No	No	No	No	No		
		32s	In	Pet	Edge	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Pct	Pct	Pct	No	No	No	No	No	No	No	No	No	No		
SOUTH CENTRAL AREA																													
ARKANSAS	DRIVER	41	36	1.11	45	4.2	89	23	6.4	3.5	1	2	6.3	117	38	6.5	4.5	100	80	80	16	11	11	63					
1 SLM																													
LOUISIANA	OAK RIDGE	41	34	1.10	46	4.3	88	22	6.3	2.4	1	2	5.5	116	39	6.1	4.3	110	90	90	19	13	13	61					
1 SLM																													
SICILY ISLAND	41	34	1.08	46	4.4	87	22	5.3	2.7	2	3	6.0	102	32	5.4	3.9	110	100	100	11	11	7	53						
1 SLM																													
SOUTHWEST AREA																													
CENTRAL TEXAS	AQUILLA	61 1/32	1.01	40	3.1	80	20	6.2	5.6	2	3	9.6	95	28	5.9	3.8	70	60	40	30	49								
1 SGO																													
BATESVILLE	2 MID	31	35	1.12	46	4.5	80	22	6.4	1.9	1	3	5.5	101	32	6.4	4.5	100	80	80	23	15	56						
NAVASOTA	1 MID	31	35	1.14	45	4.8	81	22	7.1	1.7	1	3	3.9	111	36	6.5	4.7	100	90	90	13	8	65						

1/ Reduced from 51 because of bark

